NEW CLAIMS 15-24

15. Process which comprises: providing an aluminum alloy melt having a magnesium content of at least 2.5 wt.%; adding to said melt from 0.02 to 0.08 wt.% vanadium and from 11 to 50 ppm beryllium and thereby reducing the susceptibility to dross-forming of said aluminum alloy melt.

16. Process according to claim 15, including adding to the melt from 25 to 50 ppm beryllium.

17. Process according to claim 16, including adding to the melt from 0.02 to 0.05 wt.% vanadium.

18. Process according to claim 16, including providing an aluminum alloy melt having a magnesium content of at least 3.5 wt.%.

19. Process according to claim 18, including adding to the melt from 25 to 35 ppm beryllium.

20. Process according to claim 16, including providing an aluminum alloy melt having a magnesium content of less than 3.5 wt.%, and adding less than 25 ppm beryllium to the melt.

21. Process according to claim 16, including the step of holding said melt at a temperature of 750°C.

22. Process according to claim 16, including the step of holding said alloy melt in melt condition including said vanadium and beryllium addition for a period of time.

23. Process according to claim 15, which comprises: providing an aluminum casting alloy melt having the following composition:

2.5 to 7 wt.% magnesium,

max 2.5 wt.% silicon,

max 1.6 wt.% manganese,

max 0.2 wt.% titanium,

max 0.3 wt.% iron,

max 0.2 wt.% cobalt,

and aluminum as the remainder, and production-induced contaminants individually max 0.05 wt.% and total max 0.15 wt.%; and adding to said melt from 0.02 to 0.08 wt.% vanadium and from 25 to 50 ppm beryllium and thereby reducing the susceptibility to dross-forming of said aluminum casting alloy melt.

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24. Process according to claim 23, which comprises providing an aluminum die casting alloy melt.

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